



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PRELIMINARY ISSUE

D5564-5

Job Sheet 176945

Accounting Job RD17-1054-01



Part No: D5564-5

Job Qty: 6 ea

POSITIVE RECALL

Part Name: Spacer



EFFECTIVE MAY 03 2018

DATE 18-05-10

Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 5/3/18

Job Tracking No:

Due Date: 5/11/18

Created By: Marie Lajeunesse

Type: R+D

Description:

Note: D5564 REV.A-~~prelim~~ IPP REV:A 17.11.27 NEW ISSUE DD VERF:JFS IPP REV:B 18.05.02 AS PER DWG
REV.A-PRELIM DD VERF:JFS

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	6 Ea	5/11/18	5/11/18	0.00	0.00	Start Up Waterjet2		SC 18/05/08
110	Waterjet	6 pcs	5/11/18	5/11/18	0.00	0.30	Waterjet1		SC 18/05/08
120	QC	6 pcs	5/11/18	5/11/18	0.00	0.00	QC2		SC 18/05/08
130	QC	6 pcs	5/11/18	5/11/18	0.00	0.00	QC8		SC 18/05/08
140	Brake NC	6 pcs	5/11/18	5/11/18	0.00	0.30	Brake NC 1		SC 18/05/08
150	QC	6 pcs	5/11/18	5/11/18	0.00	0.00	QC5		SC 18/05/08
160	Packaging	6 pcs	5/11/18	5/11/18	0.00	0.00	Packaging3		SC 18/05/08
170	QC21-SA	6 Ea	5/11/18	5/11/18	0.00	0.00	QC21		SC 18/05/08

Part Op 110 - 1-Cut as per Dwg Dwg Rev: A Prog Rev: A 2-Deburr if necessary
Descriptions: 160 - LOCATION : FP001

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
M304S16GA	304/316 Sheet .063	.1662 sf (.0277 ea)	90-Start up Operation	

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	M304S16GA	0	143	0

Part Specifications

Specifications could not be found.

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%;"> <tr> <td style="width:15%;">Skid-tube</td><td style="width:15%;">Cross tube</td><td style="width:15%;">Water Jet</td><td style="width:15%;">Engineering</td></tr> <tr> <td>Machining</td><td>Small Fab</td><td>Prod. Eng. Coord.</td><td>Quality</td></tr> <tr> <td>Thermoforming</td><td>Finishing</td><td>Rec/Store/Packaging</td><td>Other</td></tr> <tr> <td>Large Fab</td><td>Composite</td><td>Supplier</td><td></td></tr> </table>				Skid-tube	Cross tube	Water Jet	Engineering	Machining	Small Fab	Prod. Eng. Coord.	Quality	Thermoforming	Finishing	Rec/Store/Packaging	Other	Large Fab	Composite	Supplier	
Skid-tube	Cross tube	Water Jet	Engineering																		
Machining	Small Fab	Prod. Eng. Coord.	Quality																		
Thermoforming	Finishing	Rec/Store/Packaging	Other																		
Large Fab	Composite	Supplier																			
Date : _____	Step #: _____																				
Description Work Order Deviation																					
Root Cause																					
Environment	No Re-verification	Pressure/Forced																			
Design	Operator	Bending																			
Doc/Data	Offset/Setup	Centre Not Concentric																			
Equip/Tooling	Supplier	Cracks																			
Handling/Pre	Training	Crimp/Kink/Ripple/Wave	Inspection Incomplete/Unqualified	Wrong Stock Pulled	Part Incorrect																
Material	Use for Testing	Cuffs	Contamination	Out of Sequence	Part Lost/Missing																
Internal Transport	Poor Information	Crushing	Countersink	Off-set	Part Moved																
Tribal Knowledge	Rushing	Heat Treat	Cut Too Short	Mislabeled	Drawing																
LOA	Product Improvement	Wave/Twist in Tube	Instructions Incomplete/Unclear	Fit/Function	Finish																
Substation	Process Improvement	Marks/Chatter	Drill Holes	Misaligned/off center	Misread																
Past Expiry Date	Manufacturing Process																				
Misidentified	Past Due																				
OTHER : _____																					

DART AEROSPACE
 Container No: S069524
 Part: D5564-5
 Job No: 176945
 Serial No/Batch: S069524
 Revision: A
 Inspector: _____
 Date: 05/02/18

DART Aerospace Ltd.
 1270 Aberdeen Street
 Hawkesbury, ON K6A 1K7
 CANADA
 TEL: 1 813 632-6200
 Email: sales@dartaero.com
 www.dartaerospace.com

DQA: _____ Date: _____



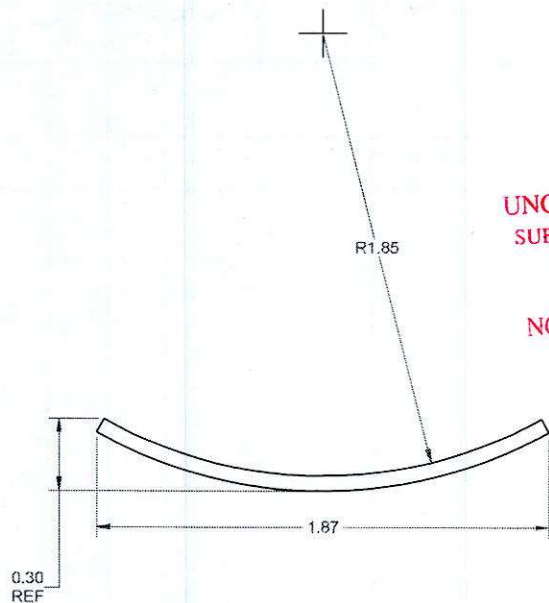
WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

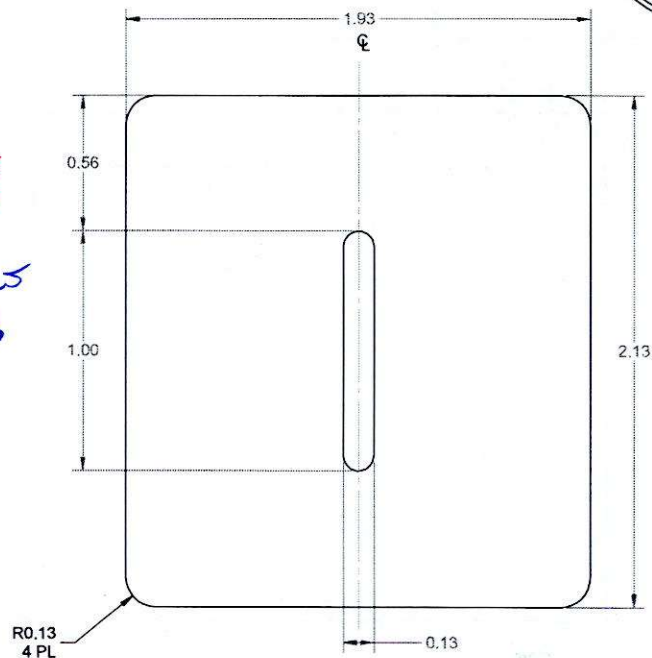
Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

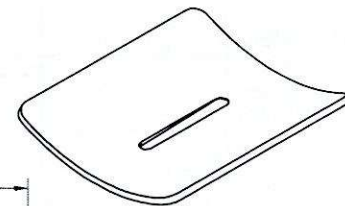
SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 176945 MWS
180503



D5564-5 SPACER
(MAKE FROM D5564-5F)



D5564-5F FLAT PATTERN



NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL SHEET 16 GAUGE (0.063 THK)
PER AMS 5513 OR 5524 OR ASTM A240 OR ASME SA240
REF DART SPEC M304S16GA
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.07 lbs
- 8) ALL NON DIMENSIONED FEATURES CONTROLLED BY D5564-5F.DXF REV. A

PRELIMINARY ISSUE

APPROVED	DESIGN	VS	DART AEROSPACE LTD	
	DRAWN	VS	HAWKESBURY, ONTARIO, CANADA	
	CHECKED	RF	DRAWING NO.	REV. A
	MFG. APPR.	DD	D5564	SHEET 5 OF 5
	APPROVED	DSW	TITLE	SCALE
	DE APPR.	DS	WEARPLATE	NTS
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DQA: _____ Date: _____



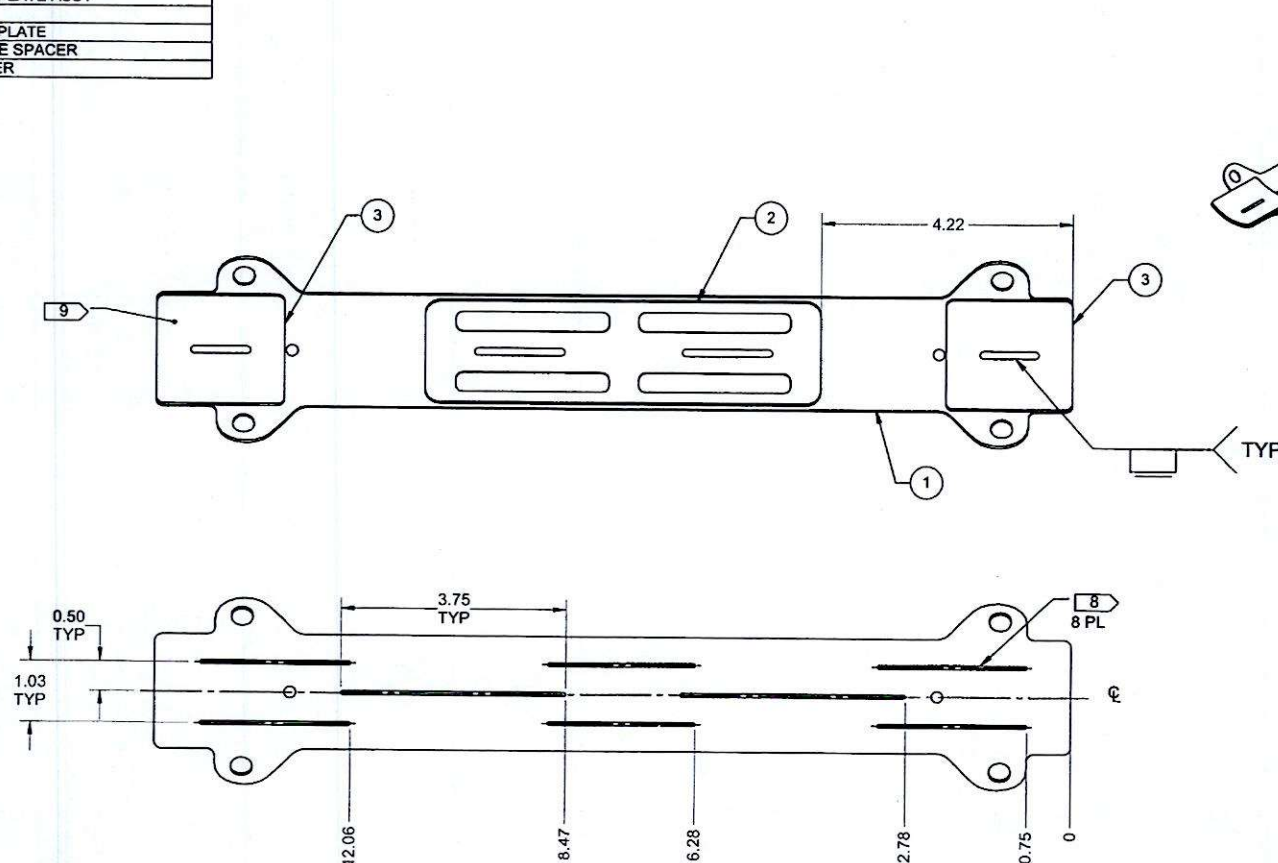
WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					

ITEM	QTY	P/N	DESCRIPTION
	X	D5564-041	WEARPLATE ASSY
1	1	D5564-1	WEARPLATE
2	1	D5564-3	MIDDLE SPACER
3	2	D5564-5	SPACER



D5564-041 WEARPLATE ASSY

NOTES:

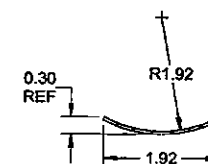
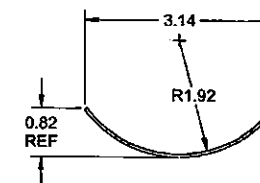
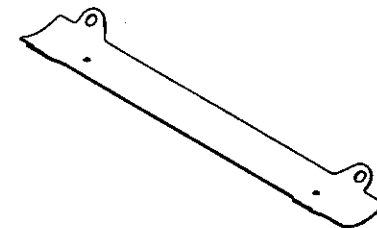
- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: PER DART QSI 044 6.1
- 7) WEIGHT: 0.78 lbs
- 8) BUILD UP HARD SURFACING 0.06 - 0.13 THICK USING 8259 ROD PER QSI 004 SECTION 4.5 (AUTOMATIC WELDING) OR BUILD UP HARD SURFACING 0.06 - 0.13 THICK USING 2059B ROD PER QSI 004 SECTION 4.1 (MANUAL WELDING)
- 9) COAT ENTIRE TOP (CONCAVE) SURFACE WITH TEXTURED COATING 0.02 - 0.04 THICK PER DART QSI 005 4.9

RELEASED

2018 MAY 03
EIN 18-753

APPROVED

A NEW ISSUE		VS	17.09.29
REV.	DESCRIPTION	BY	DATE
DESIGN	VS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	VS		
CHECKED	RF	DRAWING NO.	REV. A
MFG. APPR.	DD	D5564	SHEET 1 OF 5
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SECTION A-A
3 PL

D5564-1 WEARPLATE

NOTES:

- 1) MATERIAL: MAKE FROM D5564-1F
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.50 lbs

RELEASED

2018 MAY 03

APPROVED

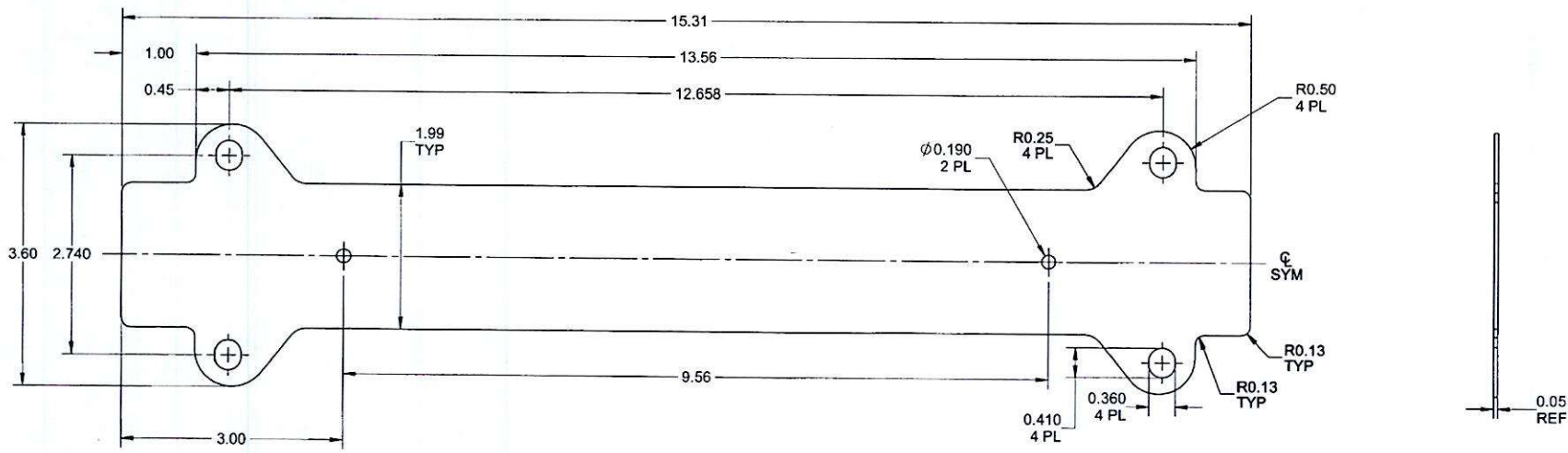
DESIGN	VS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	VS		
CHECKED	RF	DRAWING NO.	REV. A
MFG. APPR.	DD	D5564	SHEET 2 OF 5
APPROVED	DSW	TITLE	SCALE
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8 7 6 5 4 3 2 1

D

C

B



D5564-1F FLAT PATTERN

NOTES:

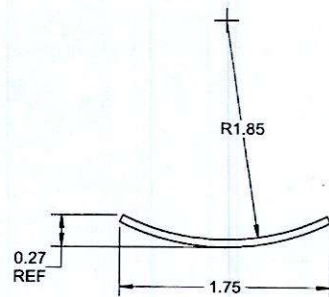
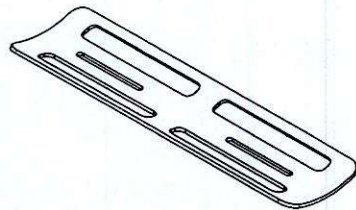
- 1) MATERIAL: AISI 304/316 STAINLESS STEEL SHEET 18 GAUGE (0.050 THK)
PER AMS 5513 OR 5524 OR ASTM A240 OR ASME SA240
REF DART SPEC M304S18GA
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.50 lbs
- 8) ALL NON DIMENSIONED FEATURES CONTROLLED BY D5564-1F.DXF REV. A

RELEASED
2018 MAY 03

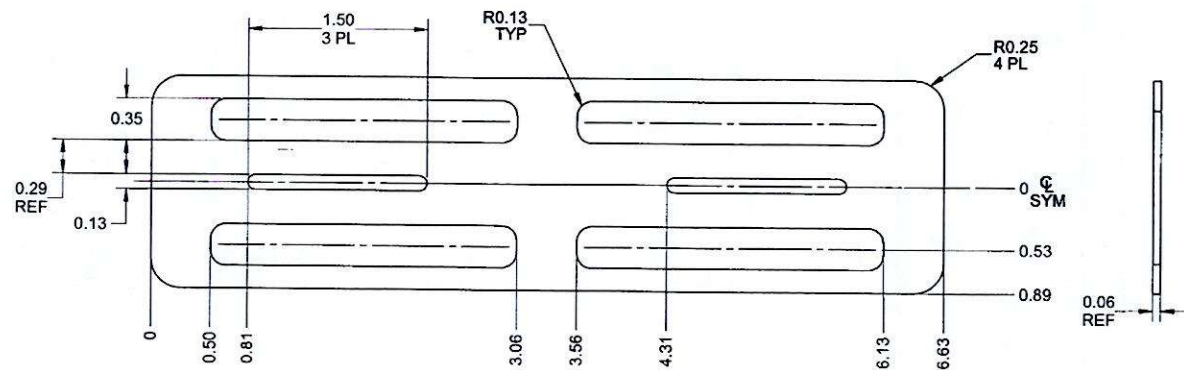
APPROVED

DESIGN	VS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	VS		
CHECKED	RF	DRAWING NO.	REV. A
MFG. APPR.	DD	D5564	SHEET 3 OF 5
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8 7 6 5 4 3 2 1



D5564-3 MIDDLE SPACER
(MAKE FROM D5564-3F)



D5564-3F FLAT PATTERN

NOTES:

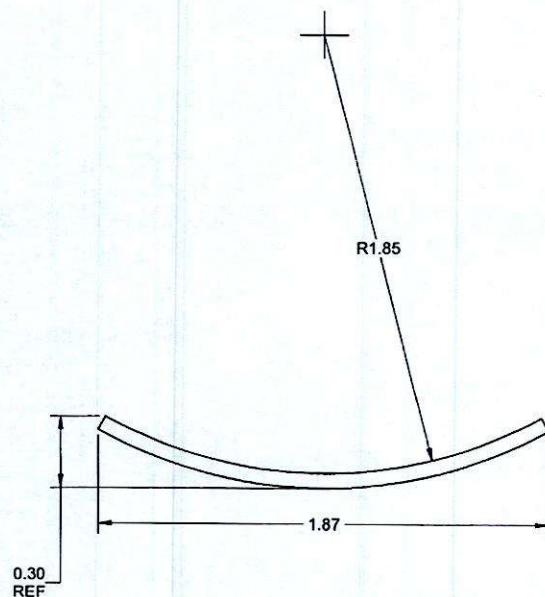
- 1) MATERIAL: AISI 304/316 STAINLESS STEEL SHEET 16 GAUGE (0.063 THK)
PER AMS 5513 OR 5524 OR ASTM A240 OR ASME SA240
REF DART SPEC M304S16GA
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.21 lbs
- 8) ALL NON DIMENSIONED FEATURES CONTROLLED BY D5564-3F.DXF REV. A

RELEASED

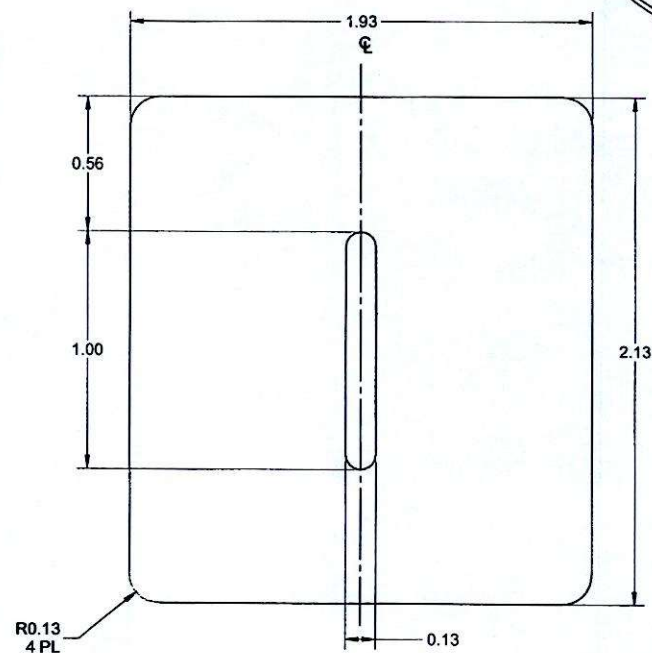
2018 MAY 03

APPROVED

DESIGN	VS	DART AEROSPACE LTD	
DRAWN	VS	HAWKESBURY, ONTARIO, CANADA	
CHECKED	RF	DRAWING NO.	REV. A
MFG. APPR.	DD	D5564	SHEET 4 OF 5
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D5564-5 SPACER
(MAKE FROM D5564-5F)



D5564-5F FLAT PATTERN

NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL SHEET 16 GAUGE (0.063 THK)
PER AMS 5513 OR 5524 OR ASTM A240 OR ASME SA240
REF DART SPEC M304S16GA
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.07 lbs
- 8) ALL NON DIMENSIONED FEATURES CONTROLLED BY D5564-5F.DXF REV. A

RELEASED
2018 MAY 03 *4*

APPROVED

DESIGN	VS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	VS		
CHECKED	RF	DRAWING NO.	REV. A
MFG. APPR.	DD	D5564	SHEET 5 OF 5
APPROVED	DSW	TITLE	SCALE
DE APPR.	DS	WEARPLATE	NTS
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5/4/2018

Print



Dart Hawkesbury
1270 Aberdeen St Hawkesbury, ON K6A 1K7 Canada
Tel (613) 632-6200

Purchasing Receipts

PO No	Supplier	Line Item No	Rel No	Terms	Purchased Item	Description	For Part No	Project	Equipment ID	Order Qty	Due Date	Received Quantity	Accounting Job No	Container No	Status	Receive Date	Price/Unit	Aging Days	Past Due	Tx
PO039368	ACIG01-VC	11	1	Net 30	MA130N15-008	4130 Steel Round Bar 5.000" : MATERIAL: AISI 4130N ROUND BAR AS PER MIL-S-6758 OR AMS 6348/6370/6528 reactive fit				3	5/7/2018	3		5088010	Stock	5/4/2018	\$ 253.33 / ft	0		\$7
Total:										3		3								\$59

Plax 5/4/2018 1:10 PM Dart Dubois, Pascal



DELIVERY - CLIENT

CO00082196

ACIER OUELLETTE INC.

935, Boul. du Havre
Salaberry de Valleyfield (Québec) J6S 5L1
Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248
Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

Customer N° CLI0001056
Date 2018/04/05
Delivery date **2018/05/07**
Your order N° 039368
Processed by Josianne Bourdon
Salesman
Carrier OUELLETTE VALLEYFIELD
Credit Terme Net 30 Days
Page 1

Billed to

DART AEROSPACE LTD

1270, ABERDEEN ST.
HAWKESBURY, Ontario, K6A 1K7

Shipped to

, Ontario,

Att : CHANTAL LAVOIE Tél.: 613-632-5200

Instruction F-M**Delivery Route** 5

Product Description	Weight	Qty	U/M	PCS NB			Internal Use Only				
				CMD	EXP	B/O	IN	I	S	C	OUT
1 ROUND 4130 5 NS R4130-5 10290 1 X 36" AC14567-AA-16/04 LINE 11 HEAT: L9374	200.28	3.00	PI_\$CLB		3'		3'				MAY 04 2018 DAS 11 BAC

Conditions :**Total Weight (Lbs) :** 200.28**NIR :** R-109516-6

All sold and delivered materials remain the property of "Acier Ouellette Inc." until payment is made in full, complete and cashed. All lost materials are at the buyer's expense. The warranty offered by "Acier Ouellette Inc." is the same as offered and honored by the manufacturer and his warranty is transferred by "Acier Ouellette Inc." to the client. The buyer hereby accepts to respect the following conditions: Net 30 days from billing date and the buyer accepts to pay administration charges of 2% per month (24% per annum) on all past due amounts over 30 days. Any default in respect with this contract will lead to payment by acceleration and permits to the seller, at his choice to claim for the balance due or the repossession of the goods sold. All claims must be made within five (5) days with this document enclosed. Any merchandise that has been damaged, cut or modified cannot be returned. All goods returned must be with our authorization and are subject to a 25% restocking charge.

Prepared By :

Verified By :

Delivered By :

Time

	Y	M	D

Customer's Signature

Date

Total (\$CAD)

CERTIFICATE OF TEST CERTIFICAT D'ESSAIS

Page 01 of 02

CUSTOMER ORDER NUMBER
NUMÉRO DE COMMANDE DU CLIENT

Certification Date
1-MAY-2018

59416
PART NUMBER/NUMÉRO DE PIÈCE

Invoice Number
T378927

SOLD TO:
VENDU À:

SHIP TO:
EXPÉDIÉ À:

Description: 4130 HR NORM AQ BAR
5 RD S/C 310" (36.0")
HEAT: L9374

AMS 6348

Line Total: 200.46 LB

ITEM: 507844

Specifications:

MIL S 6758 B
AMS 6370 (EXC HDNS) P
AMS 2251 H
EN 10204 3.1 04

AMS 2301 K
ASTM A322 13
AMS 2259 E

AMS 6348 D
AMS S 6758 A
AMS 2370 L

CHEMICAL ANALYSIS

C	MN	P	S	SI	CR	NI	MO
0.30	0.56	0.008	0.004	0.25	0.97	0.12	0.22
CU	AL						
0.24	0.034						
C	MN	P	S	SI	CR	NI	MO
0.30	0.56	0.008	0.004	0.25	0.97	0.12	0.22
CU	AL						
0.24	0.034						

RCPT: R451186

COUNTRY OF ORIGIN : USA

MECHANICAL PROPERTIES

DESCRIPTION	YLD STR	ULT TEN	%ELONG	%RED IN AREA	HARDNESS BHN 185
-------------	---------	---------	--------	-----------------	------------------------

The above data were transcribed from the manufacturer's Certificate of Test after verification for completeness and specification requirements of the information on the certificate. All test results remain on file subject to examination. /Les informations ci-haut-mentionnées sont transcrites du certificat d'essais du fabricant après vérification de l'état complet des spécifications inscrites sur le certificat. We hereby certify that the material covered by this report will meet the applicable requirements described herein, including any specification forming a part of the description. /Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut.

The willful recording of false, fictitious, or fraudulent statements in connection with test results may be punishable as a felony under federal statutes. /Les informations fausses, fictives ou frauduleuses en rapport avec le résultat des essais sont punissables en vertu des lois fédérales.

Material did not come in contact with mercury while in our possession. /Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut.

JOANNE DESPRES

MANAGER QUALITY ASSURANCE
GÉRANT DE L'ASSURANCE QUALITÉ

CERTIFICATE OF TEST CERTIFICAT D'ESSAIS

Page 02 of 02

Certification Date
1-MAY-2018

CUSTOMER ORDER NUMBER
NUMÉRO DE COMMANDE DU CLIENT

Invoice Number
T378927

59416
PART NUMBER/NUMÉRO DE PIÈCE

SOLD TO:
VENDU À:

SHIP TO:
EXPÉDIÉ À:

Description: 4130 HR NORM AQ BAR AMS 6348
5 RD S/C 3'0" (36.0")
HEAT: L9374 ITEM: 507844 Line Total: 200.46 LB
END-QUENCH HARDENABILITY (JOMINY - RC) IN

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
49	49	49	46	43	39	37	35	33	32	31	30	30	29	29
16	18	20	22	24	26	28	32	36	40					
28	27	26	26	26	26	25	24	24	23					

GRAIN SIZE : 5

INGOT CAST VACUUM DEGASSED MATERIAL IS FREE FROM MERCURY CONTAMINATION!
NO WELD REPAIR PERFORMED ON MATERIAL
DECARB: OK
MACRO: OK
AMS NO : 2301
SEVERITY : 0.0
FREQUENCY: 0.0

COMMENTS

Complies with dfars 252.225-7008 and 7009
formerly dfars 252.225-7014

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Material did not come in contact with mercury while in our possession. /Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut.

JOANNE DESPRES

MANAGER QUALITY ASSURANCE
GÉRANT DE L'ASSURANCE QUALITÉ

3/20/2018

PURCHASE ORDER



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

PO039368

Supplier: ACI001-VC
Acier Ouellette Inc.
935 Boul. Du Havre
Valleyfield
QC
J6S 5L1 Canada
Phone: 800 667 4248
Fax: 450 377 5696

PO No: PO039368

PO Date: 3/20/18

Due Date: 3/23/18

Purchase Order

Revision:

Revision Date:

Ship-To Contact: Lavoie, Chantal
clavoie@dartaero.com

E-MAILED
MAR 21 2018

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Via: Ground

Pynt Terms: Net 30

Freight Terms:

Special Comments: QUOTE NO. SOU0092664

Items										
Line Item	Part	Supplier Part No	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	M6061T6S 040		6061-T6 .040 Sheet : MATERIAL: 6061-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/11 OR AMS-QQ-A-250/11 OR AMS 4025 OR AMS 4027 OR ASTM B209 receive sf	Firmed	3/23/18	32 sf	0 sf	32 sf	\$4.4757812/sf	\$143.22
						32			MAR 26 2018	
2	M6061T6S 063		6061-T6 .063 Sheet : MATERIAL: 6061-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/11 OR AMS-QQ-A-250/11 OR AMS 4025 OR AMS 4027 OR ASTM B209 receive sf	Firmed	3/23/18	192 sf	0 sf	192 sf	\$5.6397916/sf	\$1,082.84
						192			MAR 26 2018	
3	M6061T6S 080		6061-T6 .080 Sheet : MATERIAL: 6061-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/11 OR AMS-QQ-A-250/11 OR AMS 4025 OR AMS 4027 OR ASTM B209 receive sf	Firmed	3/23/18	128 sf	0 sf	128 sf	\$7.1421093/sf	\$914.19
						144			MAR 29 2018	
4	M6061T6S2.250X13.500		6061-T6 Sheet 2.250" Thick x 13.500" Wide : MATERIAL: 6061-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/11 OR AMS-QQ-A-250/11 OR AMS 4025 OR AMS 4027 OR ASTM B209	Firmed	3/23/18	6 ft	0 ft	6 ft	\$209.70666/ft	\$1,258.24
						6			MAR 26 2018	

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3/20/2018

PURCHASE ORDER

Items										
Line Item	Part	Supplier Part No	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
5	M6061T6S2 250X2.750		6061T6 Bar 2.250 X 2.750 : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft PLATE ACCEPTABLE	Firmed	3/23/18	6 ft	0 ft	6 ft	\$111.52/ft	\$669.12
							12		MAR 26 2018	
6	M2024T3S.040		2024-T3 .040 Sheet : MATERIAL: 2024-T3 ALUMINUM SHEET AS PER QQ-A-250/4 OR AMS-QQ-A-250/4 OR AMS 4037 OR ASTM B209	Firmed	3/23/18	144 sf	0 sf	144 sf	\$5.8270833/sf	\$839.10
							144		MAR 29 2018	
7	M2024T3S.080		2024-T3 .080 Sheet : MATERIAL: 2024-T3 ALUMINUM SHEET AS PER QQ-A-250/4 OR AMS-QQ-A-250/4 OR AMS 4037 OR ASTM B209 receive sf	Firmed	3/23/18	48 sf	0 sf	48 sf	\$11.809375/sf	\$566.85
							48		MAR 29 2018	
8	M304S20GA		304/316 .040 Sheet : MATERIAL: AISI 304/316 SS SHEET ANNEALED AS PER MIL-S-5059 OR AMS 5513 (304) OR AMS 5524 (316) OR ASTM A240 OR ASME SA240 receive sf	Firmed	3/23/18	128 sf	0 sf	128 sf	\$3.9089375/sf	\$500.34
							128		MAR 26 2018	
9	M304S16GA		304/316 Sheet .063 : MATERIAL: AISI 304/316 SS SHEET ANNEALED AS PER MIL-S-5059 OR AMS 5513 (304) OR AMS 5524 (316) OR ASTM A240 OR ASME SA240 receive sf	Firmed	3/23/18	96 sf	0 sf	96 sf	\$6.5086458/sf	\$624.83
							96		MAR 26 2018	
10	M304S18GA		304/316 .050 Sheet : MATERIAL: AISI 304/316 SS SHEET ANNEALED AS PER MIL-S-5059 OR AMS 5513 (304) OR AMS 5524 (316) OR ASTM A240 OR ASME SA240	Firmed	3/23/18	96 sf	0 sf	96 sf	\$5.375/sf	\$516.00
							96		MAR 26 2018	
11	M4130NR5.000		4130 Steel Round Bar 5.000" : MATERIAL: AISI 4130N ROUND BAR AS PER MIL-S-6758 OR AMS 6348/6370/6528 receive ft	Firmed	3/28/18	3 ft	0 ft	3 ft	\$253.3333/ft	\$760.00
							3		MAY 04 2018	
									DAS 11 9-89	
Grand Total:									\$7,874.74	

Order Notes

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3/20/2018

PURCHASE ORDER

Order Notes

Procurement Quality Clauses

- A005 right of entry
- A012 chemical and physical test report
- A016 personnel qualification
- A017 raw material identification (as applicable)
- A026 certification of material conformance
- A041 quality management system
- A042 dart notification by supplier
- A043 retention of quality documents
- A048 counterfeit parts avoidance, detection, mitigation and disposition program
- A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

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MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M4130NR5.000
 DATE: MAY 04 2018

PO / BATCH NO: 039368/SC68610

MATERIAL CERT REC'D: Yes
 QUANTITY RECEIVED: 31
 QUANTITY INSPECTED: 31
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 5.000
 THICKNESS RECEIVED: 5.000
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y ☒ N ☐	
CORRECT FINISH	Y ☒ N ☐	
CORROSION	Y ☒ N ☐	
CORRECT GRAIN DIRECTION	Y ☒ N ☐	
CORRECT MATERIAL PER M-DRAWING	Y ☒ N ☐	<u>m.c.l.-5-6758</u>
CORRECT THICKNESS	Y ☒ N ☐	
PHOTO REQUIRED	Y ☒ N ☐	
CORRECT REF # TO LINK CERT	Y ☒ N ☐	<u>Heat # L9374</u>
CORRECT MATERIAL IDENTIFICATION	Y ☒ N ☐	
CORRECT M# ON THE MATERIAL	Y ☒ N ☐	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y ☐ N ☒	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y ☐ N ☒	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>DAS</u> <u>11</u> DATE: <u>9-40 MAY 04 2018</u>	SIGNED OFF BY: _____ DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in



DESIGN <i>[initials]</i>	DRAWN BY <i>[initials]</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>UP</i>	APPROVED <i>[initials]</i>	DRAWING NO. M4130N-R	REV. A SHEET 1 OF 1
DATE 02.04.19		TITLE 4130 ROUND BAR	SCALE N.T.S.
A 02.04.19		NEW ISSUE	

PURCHASE MATERIALS:

AISI 4130N ROUND BAR

PER MIL-S-6758 OR AMS 6348/6370/6528

PART NUMBER:

M4130N-R.D.DDD

WHERE D.DDD = DIAMETER IN INCHES

DIA

EG. 7/8" ROUND BAR = M4130N-R0.875

RELEASED
02.05.06 *[initials]*

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